

=> file reg; d que 117

[FILE 'REGISTRY' ENTERED AT 11:17:25 ON 19 OCT 2000  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2000 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 18 OCT 2000 HIGHEST RN 297131-67-0  
 DICTIONARY FILE UPDATES: 18 OCT 2000 HIGHEST RN 297131-67-0

TSCA INFORMATION NOW CURRENT THROUGH July 8, 2000

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT  
 for details.

L17 348 SEA FILE=REGISTRY ABB=ON PLU=ON 5526.1.1/RID - *all compounds containing this ring structure*

=> fil caplus



[FILE 'CAPLUS' ENTERED AT 11:17:46 ON 19 OCT 2000  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2000 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE COVERS 1967 - 19 Oct 2000 VOL 133 ISS 17  
 FILE LAST UPDATED: 18 Oct 2000 (20001018/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

Now you can extend your author, patent assignee, patent information, and title searches back to 1907. The records from 1907-1966 now have this searchable data in CAOLD. You now have electronic access to all of CA: 1907 to 1966 in CAOLD and 1967 to the present in CAPLUS on STN.

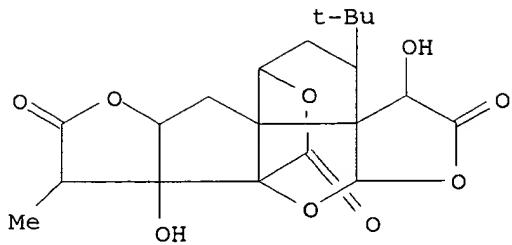
=> d que 134

L17 348 SEA FILE=REGISTRY ABB=ON PLU=ON 5526.1.1/RID  
 L18 467 SEA FILE=CAPLUS ABB=ON PLU=ON L17  
 L19 430393 SEA FILE=CAPLUS ABB=ON PLU=ON ?ALCOHOL?  
 L21 45678 SEA FILE=CAPLUS ABB=ON PLU=ON ?TOBACCO?  
 L22 3850 SEA FILE=CAPLUS ABB=ON PLU=ON ?ADDICT?  
 L23 62717 SEA FILE=CAPLUS ABB=ON PLU=ON ?CIGAR? OR ?NICOTIN?  
 L24 12855 SEA FILE=CAPLUS ABB=ON PLU=ON ?COCAIN? OR ?HEROIN?  
 L25 26754 SEA FILE=CAPLUS ABB=ON PLU=ON ?AMPHETAMIN? OR ?BARBITURAT?  
 L34 127 SEA FILE=CAPLUS ABB=ON PLU=ON L18 AND (L19 OR (L21 OR L22 OR  
 L23 OR L24 OR L25))

Searched by Barb O'Bryen & Toby Port

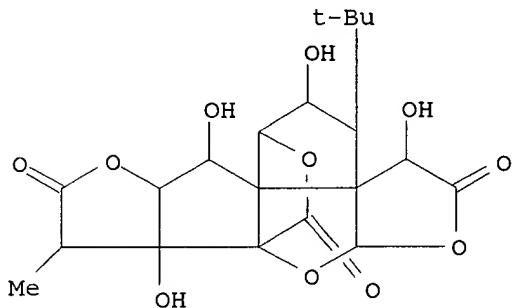
=> [d ibib abs hitstr 134 1-12; file caold; d que 137

L34 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2000 ACS  
 ACCESSION NUMBER: 2000:341808 CAPLUS  
 DOCUMENT NUMBER: 133:150796  
 TITLE: 1H-NMR analysis of intra- and intermolecular H-bonds  
 of alcohols in DMSO: chemical shift of  
 hydroxy groups and aspects of conformational analysis  
 of selected monosaccharides, inositol, and  
 ginkgolides  
 AUTHOR(S): Bernet, Bruno; Vasella, Andrea  
 CORPORATE SOURCE: Laboratorium fur Organische Chemie, ETH-Zentrum,  
 Zurich, CH-8092, Switz.  
 SOURCE: Helv. Chim. Acta (2000), 83(5), 995-1021  
 CODEN: HCACAV; ISSN: 0018-019X  
 PUBLISHER: Verlag Helvetica Chimica Acta  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The interpretation of 1H-NMR chem. shifts, coupling consts., and coeffs.  
 of temp. dependence ( $\delta$ (OH),  $J(H,OH)$ , and  $\Delta\delta$ (OH)/ $\Delta T$ )  
 evidences that, in (D6)DMSO soln., the signal of an OH group  
 involved as donor in an intramol. H-bond to a hydroxy or alkoxy group is  
 shifted upfield, whereas the signal of an OH group acting as acceptor of  
 an intramol. H-bond and as donor in an intermol. H-bond to (D6)DMSO is  
 shifted downfield. The relative strength of the intramol. H-bond depends  
 on co-operativity and on the acidity of OH groups. The acidity of OH  
 groups is enhanced when they are in an antiparallel orientation to a C-O  
 bond. A comparison of the 1H-NMR spectra of alcs. in CDCl<sub>3</sub> and  
 (D6)DMSO allows discrimination between weak and strong intramol. H-bonds.  
 Consideration of IR spectra (CHCl<sub>3</sub> or CH<sub>2</sub>Cl<sub>2</sub>) shows that the rule  
 according to which the downfield shift of  $\delta$ (OH) for H-bonded  
 alcs. in CDCl<sub>3</sub> parallels the strength of the H-bond is valid only  
 for alcs. forming strong intramol. H-bonds. H-Bonding of  
 hexopyranoses, hexulopyranoses, alkyl hexopyranosides, alkyl  
 4,6-O-benzylidenehexopyranosides, levoglucosans, and inositol in (D6)DMSO  
 was investigated.  
 IT 15291-75-5, Ginkgolide A 15291-76-6, Ginkgolide C  
 15291-77-7, Ginkgolide B 123600-74-8 130523-06-7  
 145497-37-6 153355-66-9 201736-39-2  
 287109-66-4 287109-68-6  
 RL: PRP (Properties)  
 (1H-NMR anal. of intra- and intermol. H-bonds of alcs. in  
 DMSO: chem. shift of hydroxy groups and aspects of conformational anal.  
 of selected monosaccharides, inositol, and ginkgolides)  
 RN 15291-75-5 CAPLUS  
 CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-  
 b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-,  
 (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)



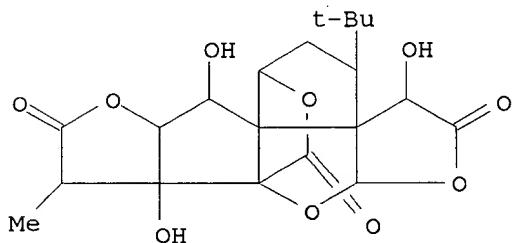
RN 15291-76-6 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
3-(1, 1-dimethylethyl)hexahydro-2, 4, 7b, 11-tetrahydroxy-8-methyl-,  
(1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11S, 11aR)- (9CI) (CA INDEX NAME)



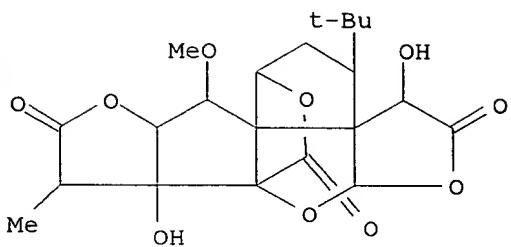
RN 15291-77-7 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
3-(1, 1-dimethylethyl)hexahydro-4, 7b, 11-trihydroxy-8-methyl-,  
(1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11S, 11aR)- (9CI) (CA INDEX NAME)

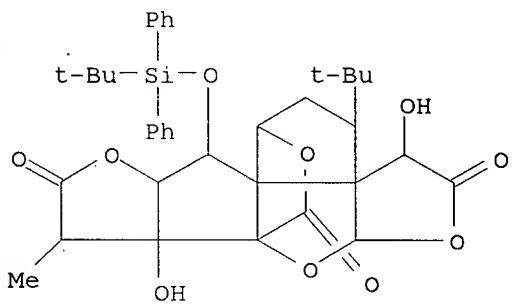


RN 123600-74-8 CAPLUS

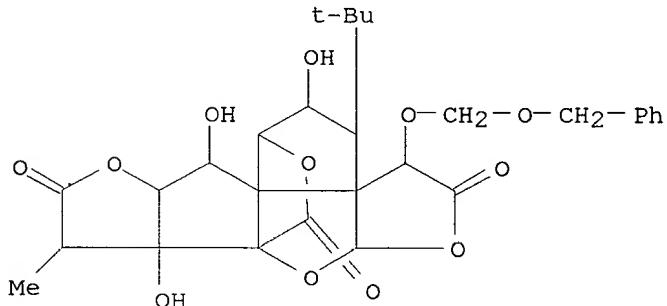
CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
3-(1, 1-dimethylethyl)hexahydro-4, 7b-dihydroxy-11-methoxy-8-methyl-,  
(1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aS)- (9CI) (CA INDEX NAME)



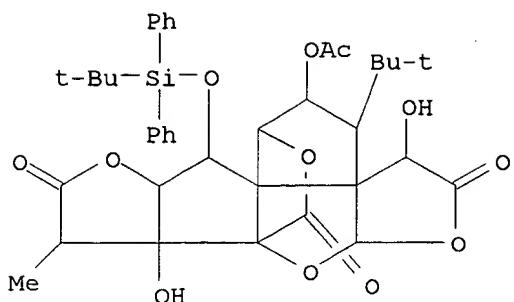
RN 130523-06-7 CAPLUS  
CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
3-(1,1-dimethylethyl)-11-[(1,1-dimethylethyl)diphenylsilyl]oxy]hexahydro-  
4,7b-dihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aS)-  
(9CI) (CA INDEX NAME)



RN 145497-37-6 CAPLUS  
CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
-3-(1, 1-dimethylethyl)hexahydro-2, 7b, 11-trihydroxy-8-methyl-4-[phenylmethoxy)methoxy], (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aR)-(9CI) (CA INDEX NAME)



RN 153355-66-9 CAPLUS  
CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 2-(acetyloxy)-3-(1, 1-dimethylethyl)-11-[(1, 1-dimethylethyl)diphenylsilyl]oxy]hexahydro-4, 7b-dihydroxy-8-methyl-, (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aS)- (9CI) (CA INDEX NAME)

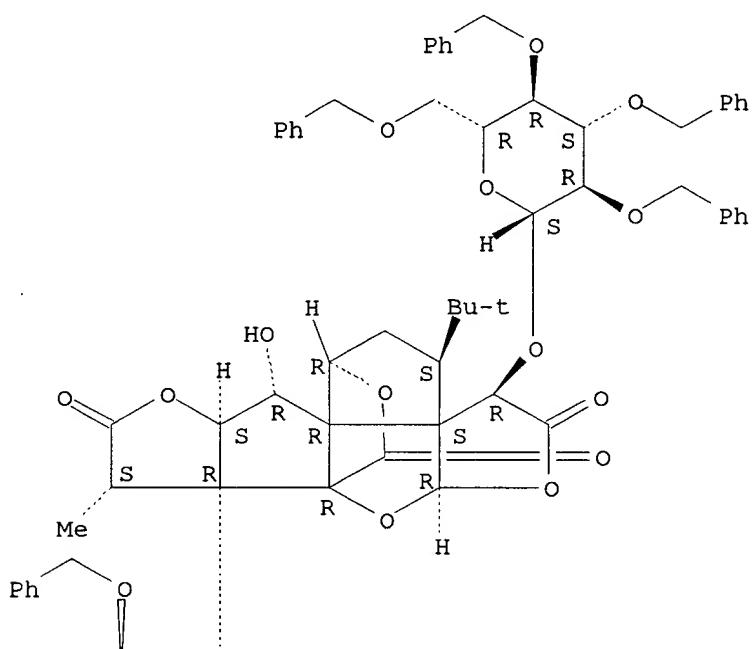


RN 201736-39-2 CAPLUS

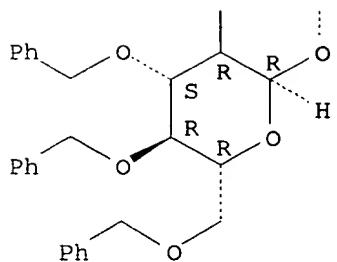
CN 9H-1,7a-(Epoxyethoxy)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylpropyl)hexahydro-11-hydroxy-8-methyl-7b-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-glucopyranosyl]oxy]-4-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-,  
 (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

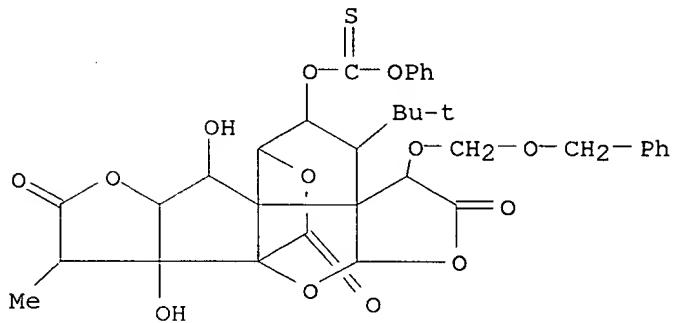


PAGE 2-A



RN 287109-66-4 CAPLUS

CN Carbonothioic acid, O-[(1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aR)-3-(1,1-dimethylethyl)octahydro-7b, 11-dihydroxy-8-methyl-5, 9, 12-trioxo-4-[(phenylmethoxy)methoxy]-9H-1, 7a-(epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-2-yl]O-phenyl ester (9CI) (CA INDEX NAME)

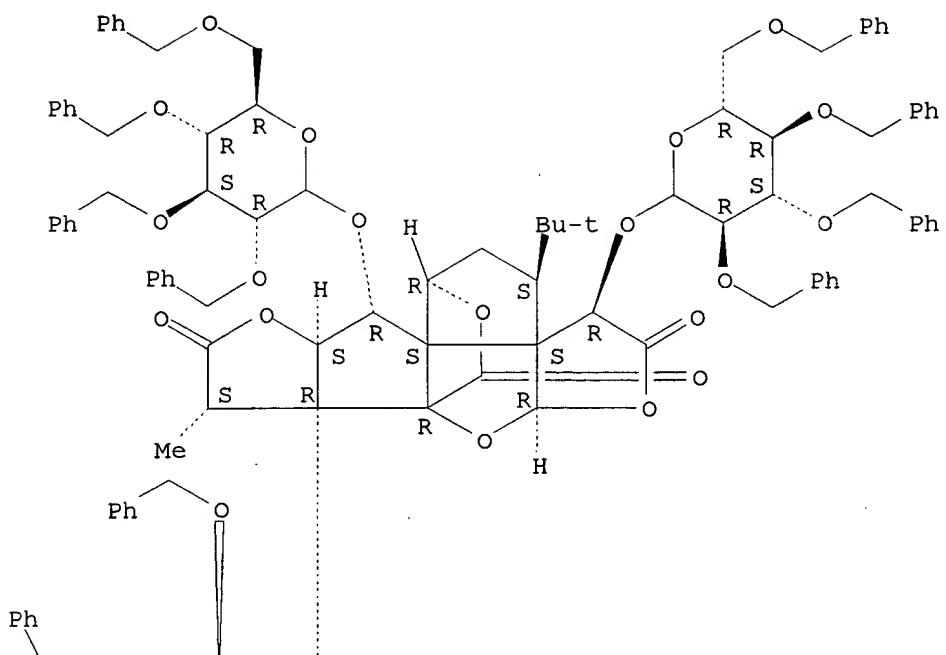


RN 287109-68-6 CAPLUS

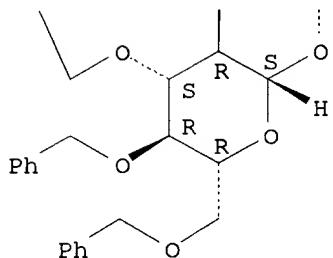
CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-8-methyl-4, 11-bis[[2, 3, 4, 6-tetrakis-O-(phenylmethyl)-D-glucopyranosyl]oxy]-7b-[[2, 3, 4, 6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

## PAGE 1-A



## PAGE 2-A



REFERENCE COUNT:

75

REFERENCE(S):

- (1) Aaron, H; Top Stereochem 1979, V11, P1 CAPLUS
- (2) Abdel-Malik, M; Carbohydr Res 1987, V159, P11 CAPLUS
- (3) Adams, B; Magn Reson Chem 1994, V32, P225 CAPLUS
- (4) Alzeer, J; Helv Chim Acta 1995, V78, P242 CAPLUS
- (5) Angyal, S; J Chem Soc Perkin Trans 2 1996, P1485 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:265919 CAPLUS

DOCUMENT NUMBER: 132:319735

TITLE: Chemical constituents of Ginkgo biloba

AUTHOR(S): Hasler, Andreas

CORPORATE SOURCE: Zeller Ltd., Herbal Remedies, Romanshorn, CH-8590, Switz.

SOURCE: Med. Aromat. Plants--Ind. Profiles (2000), 12(Ginkgo Biloba), 109-142  
Searched by Barb O'Bryen & Toby Port

CODEN: MAPPFL; ISSN: 1027-4502

PUBLISHER:

Harwood Academic Publishers

DOCUMENT TYPE:

Journal; General Review

LANGUAGE:

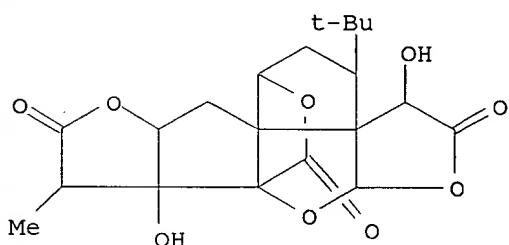
English

AB A review is given with many refs. on *G. biloba* constituents including terpenes, flavonoids, org. acids, polyacetate derived compds., carbohydrates, misc. org. compds., and inorg. compds.

IT 15291-75-5, Ginkgolide A 15291-76-6, Ginkgolide C  
 15291-77-7, Ginkgolide B 15291-78-8, Ginkgolide M  
 107438-79-9, Ginkgolide J  
 RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)  
 (chem. constituents of *Ginkgo biloba*)

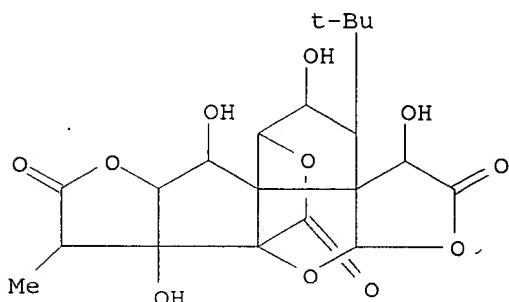
RN 15291-75-5 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
 3-(1, 1-dimethylethyl)hexahydro-4, 7b-dihydroxy-8-methyl-,  
 (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



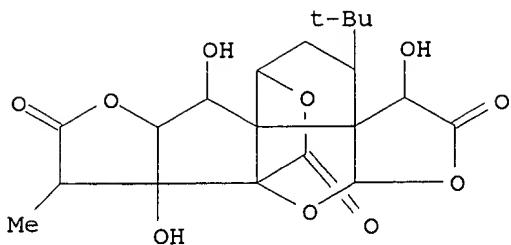
RN 15291-76-6 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
 3-(1, 1-dimethylethyl)hexahydro-2, 4, 7b, 11-tetrahydroxy-8-methyl-,  
 (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aR)- (9CI) (CA INDEX NAME)



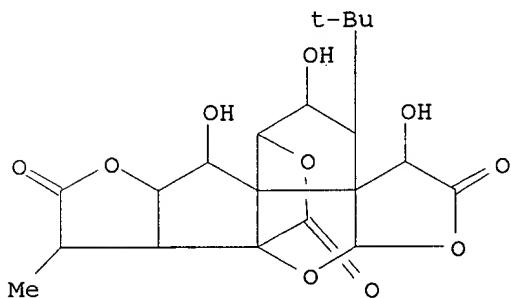
RN 15291-77-7 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
 3-(1, 1-dimethylethyl)hexahydro-4, 7b, 11-trihydroxy-8-methyl-,  
 (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aR)- (9CI) (CA INDEX NAME)



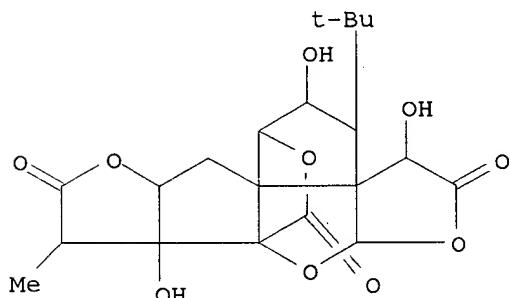
RN 15291-78-8 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-2, 4, 11-trihydroxy-8-methyl-, (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aS)- (9CI) (CA INDEX NAME)



RN 107438-79-9 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-2, 4, 7b-trihydroxy-8-methyl-, (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

REFERENCE (S):

- (1) Adawadkar, P; Fitoterapia 1981, V52, P129 CAPLUS
- (8) Chang, S; Saengyak Hakhoechi 1993, V24, P54 CAPLUS
- (9) Choukchou-Braham, N; Tetrahedron Lett 1994, V35, P3949 CAPLUS
- (10) Chung, A; Korean J Food Sci Technol 1978, V10, P119 CAPLUS
- (11) Chung, B; Daehan Hwahak Hwoejee 1982, V26, P95 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT  
Searched by Barb O'Bryen & Toby Port

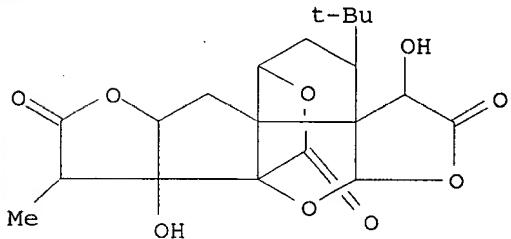
L34 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2000 ACS  
 ACCESSION NUMBER: 2000:15604 CAPLUS  
 DOCUMENT NUMBER: 132:35038  
 TITLE: Water-soluble native vegetable dried extract, in particular Gingko biloba extract with high content of terpenoids and flavone glycosides.  
 INVENTOR(S): Oschmann, Rainer; Grethlein, Eckardt  
 PATENT ASSIGNEE(S): Willmar Schwabe G.m.b.H. and Co., Germany  
 SOURCE: Ger. Offen., 8 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19829516	A1	20000105	DE 1998-19829516	19980702
WO 2000001397	A1	20000113	WO 1999-DE1812	19990619
W: AU, CA, JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9954069	A1	20000124	AU 1999-54069	19990619

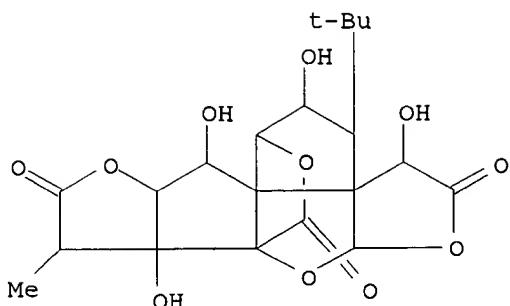
PRIORITY APPLN. INFO.: DE 1998-19829516 19980702  
WO 1999-DE1812 19990619

AB A water-sol. native vegetable dried ext. from plant parts, esp. from Gingko biloba leaves, contains flavone glycosides, terpene lactones and other components and is prep'd. from an ultrafiltered alc.-water ext. preferably. The ext. is used in dietetic foods, drugs and cosmetics.  
 IT 15291-75-5P, Ginkgolide A 15291-76-6P, Ginkgolide C  
15291-77-7P, Ginkgolide B  
 RL: BUU (Biological use, unclassified); FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (water-sol. native vegetable dried ext., in particular Gingko biloba ext. with high content of terpenoids and flavone glycosides.)

RN 15291-75-5 CAPLUS  
 CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
 3-(1, 1-dimethylethyl)hexahydro-4, 7b-dihydroxy-8-methyl-,  
 (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)

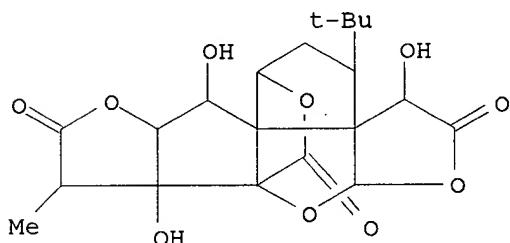


RN 15291-76-6 CAPLUS  
 CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
 3-(1, 1-dimethylethyl)hexahydro-2, 4, 7b, 11-tetrahydroxy-8-methyl-,  
 (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aR)- (9CI) (CA INDEX NAME)



RN 15291-77-7 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-4, 7b, 11-trihydroxy-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11S, 11aR)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1

REFERENCE(S): (1) Anon; DE 19829516 A1 CAPLUS

L34 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:12986 CAPLUS

DOCUMENT NUMBER: 132:33379

TITLE: Health-care cigarette from ginkgo leaf

INVENTOR(S): Zou, Qiang; Zou, Yong

PATENT ASSIGNEE(S): Peop. Rep. China

SOURCE: Faming Zhanli Shengqing Gongkai Shuomingshu, 4 pp.

CODEN: CNXXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1181217	A	19980513	CN 1997-106146	19971017
CN 1045379	B	19991006		
WO 9920131	A1	19990429	WO 1998-CN209	19980930
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9893365	A1	19990510	AU 1998-93365	19980930
PRIORITY APPLN. INFO.:			CN 1997-106146	19971017
			Searched by Barb O'Bryen & Toby Port	

WO 1998-CN209 19980930

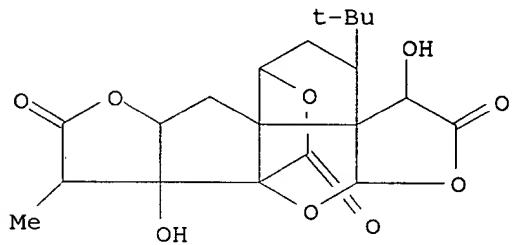
AB The raw material is composed of ginkgo leaf 50-100%, and **tobacco** 0-50%.

IT 15291-75-5 15291-76-6 15291-77-7

RL: BSU (Biological study, unclassified); BIOL (Biological study) (low-health-rise **cigarettes** manufd. from ginkgo leaf)

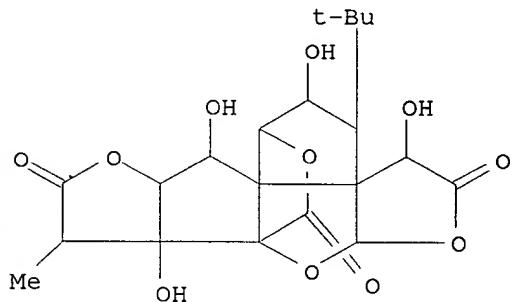
RN 15291-75-5 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-4, 7b-dihydroxy-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



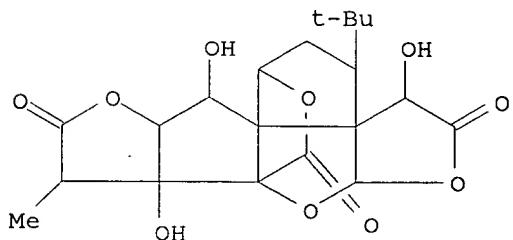
RN 15291-76-6 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-2, 4, 7b, 11-tetrahydroxy-8-methyl-, (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aR)- (9CI) (CA INDEX NAME)

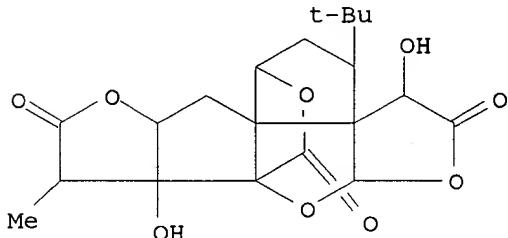


RN 15291-77-7 CAPLUS

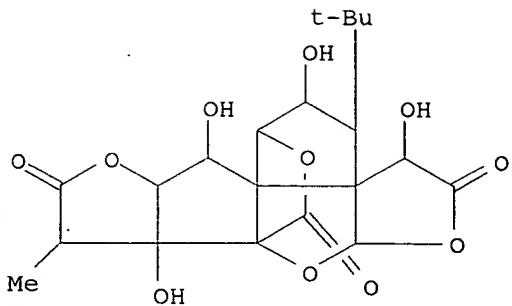
CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-4, 7b, 11-trihydroxy-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aR)- (9CI) (CA INDEX NAME)



L34 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2000 ACS  
 ACCESSION NUMBER: 2000:12273 CAPLUS  
 DOCUMENT NUMBER: 132:227524  
 TITLE: Liquid chromatography/electrospray mass spectrometry  
 of bioactive terpenoids in *Ginkgo biloba* L.  
 AUTHOR(S): Mauri, Pierluigi; Migliazza, Barbara; Pietta,  
 Piergiorgio  
 CORPORATE SOURCE: ITBA/CNR, Milan, 20090, Italy  
 SOURCE: J. Mass Spectrom. (1999), 34(12), 1361-1367  
 CODEN: JMSPFJ; ISSN: 1076-5174  
 PUBLISHER: John Wiley & Sons Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Standardized exts. of *G. biloba* leaves are mainly used in the treatment of  
 peripheral and cerebral circulation disorders, and also as a remedy  
 against asthma, coughs, bladder inflammation, blenorragia and alc  
 abuse. The leaf exts. contain biflavones, flavonol glycosides and  
 terpene lactones. This paper reports a method based on liq. chromatog.  
 coupled with electrospray mass spectrometry for the anal. of terpenoids in  
*G. biloba* exts. This method allows the rapid isocratic sepn. of  
 underivatized ginkgolides (A, B, C and J) and bilobalide at very low  
 levels (10 pg on the column) and their quant. detection by external  
 standardization with relative std. deviations of 3 and 5% for intra- and  
 inter-day analyses, resp.  
 IT 15291-75-5, Ginkgolide A 15291-76-6, Ginkgolide C  
 15291-77-7, Ginkgolide B 107438-79-9, Ginkgolide J  
 RL: ANT (Analyte); BOC (Biological occurrence); ANST (Analytical study);  
 BIOL (Biological study); OCCU (Occurrence)  
 (liq. chromatog./electrospray mass spectrometry of bioactive terpenoids  
 in *Ginkgo biloba* exts..)  
 RN 15291-75-5 CAPLUS  
 CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2,3-  
 b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-,  
 (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)

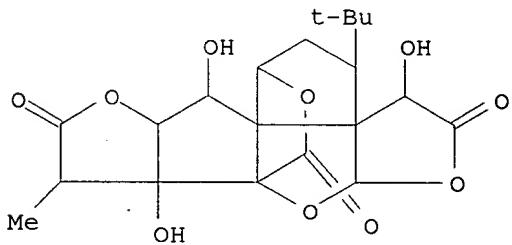


RN 15291-76-6 CAPLUS  
 CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2,3-  
 b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-2,4,7b,11-tetrahydroxy-8-methyl-,  
 (1S,2R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)



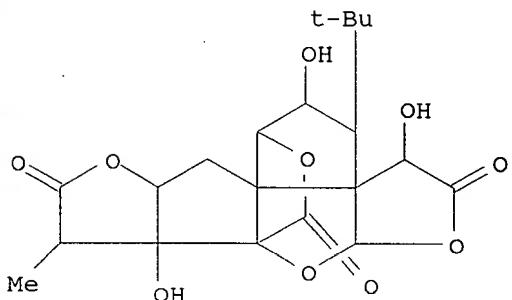
RN 15291-77-7 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
 3-(1, 1-dimethylpropyl)hexahydro-4, 7b, 11-trihydroxy-8-methyl-,  
 (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11S, 11aR)- (9CI) (CA INDEX NAME)



RN 107438-79-9 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
 3-(1, 1-dimethylpropyl)hexahydro-2, 4, 7b-trihydroxy-8-methyl-,  
 (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 20

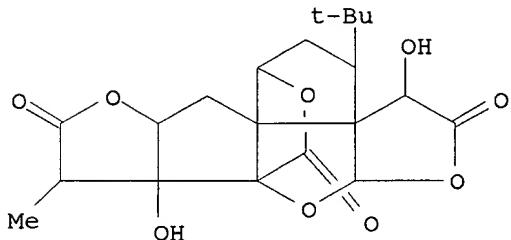
REFERENCE(S) :

- (1) Biber, A; Planta Med 1999, V65, P192 CAPLUS
- (2) Bruno, C; Planta Med 1993, V59, P302 CAPLUS
- (3) Camponovo, F; Phytochem Anal 1995, V6, P141 CAPLUS
- (4) Chauret, N; J Chromatogr 1991, V588, P281 CAPLUS
- (7) Komoda, Y; Iyo Kizai Kenkyusho Hokuko 1988, V22, P83 CAPLUS

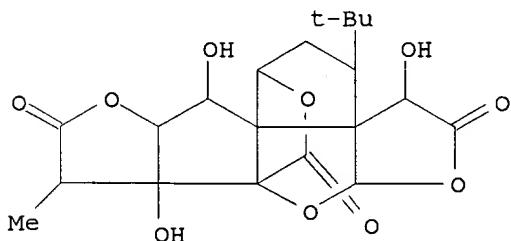
ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 1999:794218 CAPLUS  
 DOCUMENT NUMBER: 132:26809  
 TITLE: Ginkgo biloba extract enhanced bioavailability  
 composition and food products  
 INVENTOR(S): Daoud, Abdulwahid H.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S., 5 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6001393	A	19991214	US 1997-892423	19970714
AB	A compn. and method which increases the bioavailability of ingested Ginkgo Biloba ext. (GBE). The compn. comprises a mixt. of polyol(s), and GBE. The compn. is ingested, either in the concd. paste form, dild. with edible liq. or food as an additive. Increased serum levels of ginkgolide A, B and bilobalide are demonstrated for individuals ingesting the compn. over ingesting GBE without the polyol(s).			
IT	15291-75-5, Ginkgolide a 15291-77-7, Ginkgolide b RL: BOC (Biological occurrence); BPR (Biological process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses) (Ginkgo biloba ext. enhanced bioavailability compn. and food products)			
RN	15291-75-5 CAPLUS			
CN	9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)			



RN 15291-77-7 CAPLUS  
 CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-,  
 (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aR)- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

12

REFERENCE(S):

- (1) Allard; US 5525359 1996
- (2) Ayroles; US 4981688 1991
- (4) Hastings; US 5626849 1997 CAPLUS
- (6) Liu; US 4708949 1987 CAPLUS
- (7) Majeed; US 5536506 1996 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:497039 CAPLUS

DOCUMENT NUMBER: 131:120852

TITLE: Ginkgo biloba extracts for the preparation of pharmaceuticals for treatment of drug dependence/  
addiction

INVENTOR(S): Drieu, Katy

PATENT ASSIGNEE(S): Societe de Conseils de Recherches et d'Applications Scientifiques Scras S.A., Fr.

SOURCE: Fr. Demande, 27 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2771639	A1	19990604	FR 1997-15230	19971203
FR 2771639	B1	20000505		

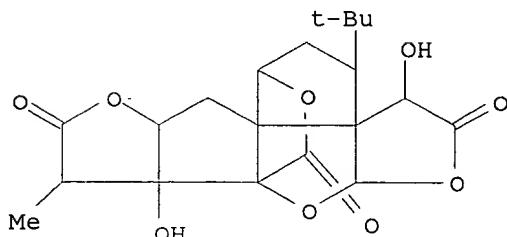
OTHER SOURCE(S): MARPAT 131:120852

AB The use of G. biloba exts. for the treatment of drug dependence/  
addiction, e.g., **alcoholism, tobacco**  
dependence, is described. The effect of the exts. on the dependence on  
alc. was studied in rats. Rats receiving 50 or 100 mg/kg ext./day  
showed a decreased hyperactivity effect.

IT 15291-75-5, Ginkgolide A 15291-77-7, Ginkgolide B  
RL: BAC (Biological activity or effector, except adverse); BOC (Biological  
occurrence); RCT (Reactant); THU (Therapeutic use); BIOL (Biological  
study); OCCU (Occurrence); USES (Uses)  
(Ginkgo biloba exts. for pharmaceuticals in treatment of drug  
dependence/**addiction**)

RN 15291-75-5 CAPLUS

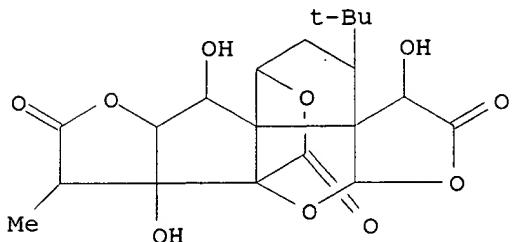
CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-  
b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
3-(1, 1-dimethyllethyl)hexahydro-4, 7b-dihydroxy-8-methyl-,  
(1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



RN 15291-77-7 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-  
b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
Searched by Barb O'Bryen & Toby Port

3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-,  
(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)



IT 15291-75-5DP, Ginkgolide a, derivs. 201736-31-4P

201736-32-5P 201736-33-6P 201736-34-7P

201736-45-0P 201736-47-2P 201736-49-4P

201736-56-3P 201736-63-2P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(Ginkgo biloba exts. for pharmaceuticals in treatment of drug dependence/addiction)

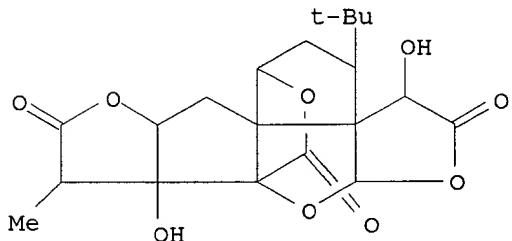
RN 15291-75-5 CAPLUS

CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-

b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,

3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-,

(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)



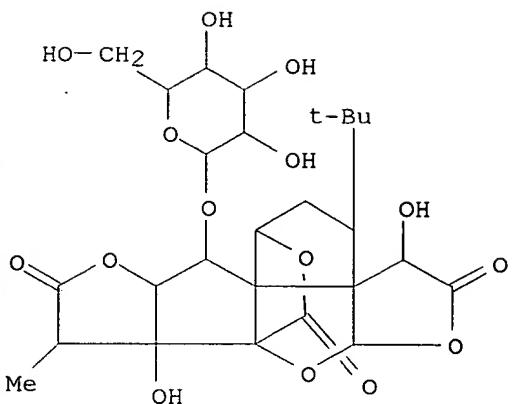
RN 201736-31-4 CAPLUS

CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-

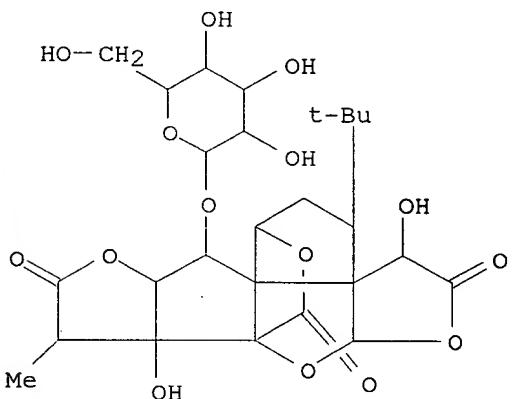
b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,

3-(1,1-dimethylethyl)-11-(.beta.-D-glucopyranosyloxy)hexahydro-4,7b-dihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aS)- (9CI)

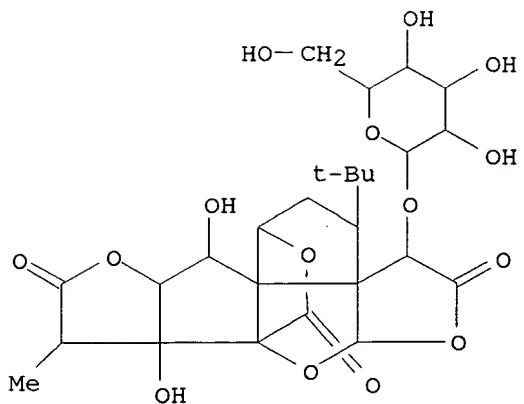
(CA INDEX NAME)



RN 201736-32-5 CAPLUS  
CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
3-(1,1-dimethylethyl)-11-(.alpha.-D-glucopyranosyloxy)hexahydro-4,7b-dihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aS)- (9CI)  
(CA INDEX NAME)

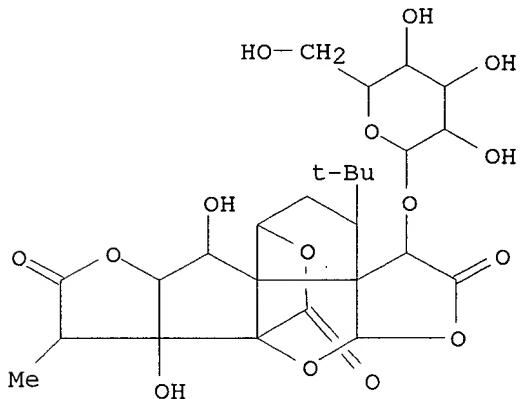


RN 201736-33-6 CAPLUS  
CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
3-(1,1-dimethylethyl)-4-(.beta.-D-glucopyranosyloxy)hexahydro-7b,11-dihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aR)- (9CI)  
(CA INDEX NAME)



RN 201736-34-7 CAPLUS

CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
3-(1,1-dimethyl-4-hydroxy-8-methyl-1,2-dihydro-4H-furan-3-yl)-4-(.alpha.-D-glucopyranosyloxy)hexahydro-7b,11-dihydroxy-8-methyl-1, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aR)- (9CI)  
(CA INDEX NAME)

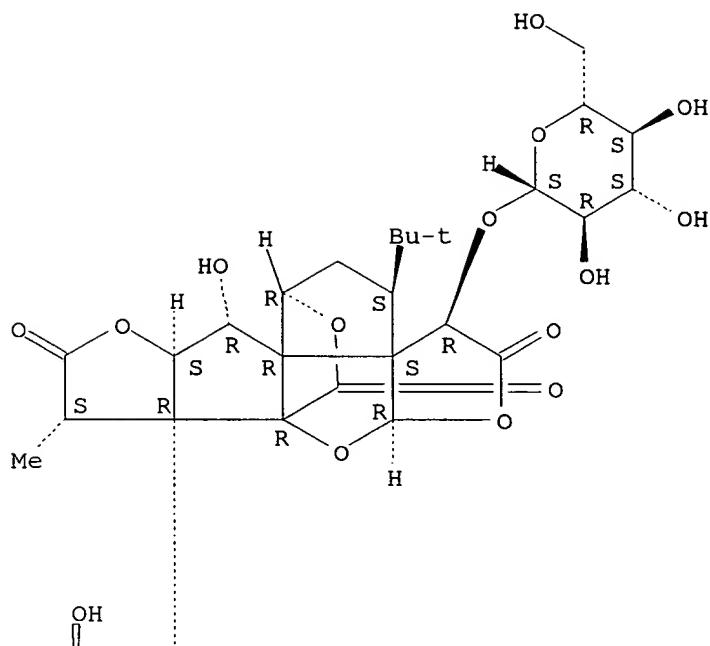


RN 201736-45-0 CAPLUS

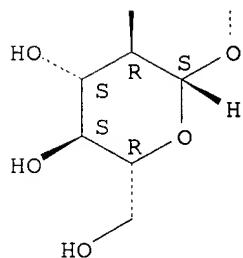
CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
3-(1,1-dimethyl-4-hydroxy-8-methyl-1,2-dihydro-4H-furan-3-yl)-4,7b-bis(.beta.-D-glucopyranosyloxy)hexahydro-11-hydroxy-8-methyl-1, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

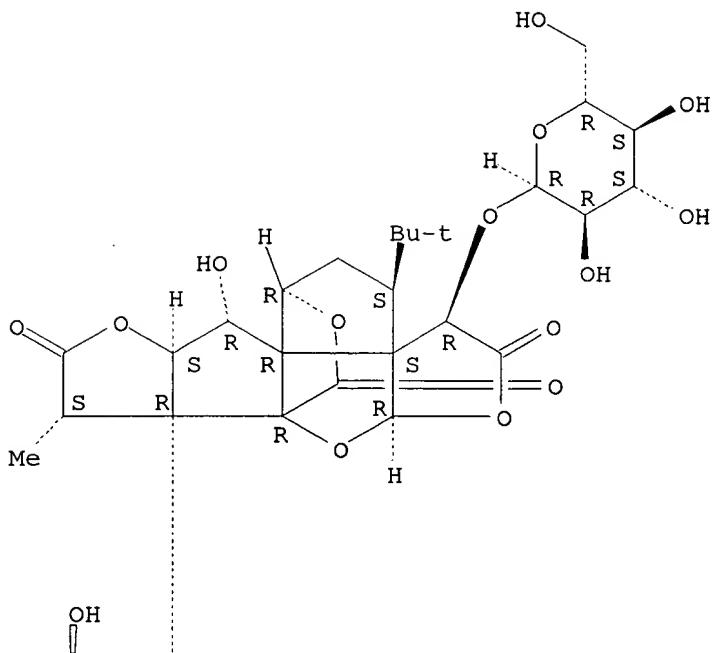


RN 201736-47-2 CAPLUS

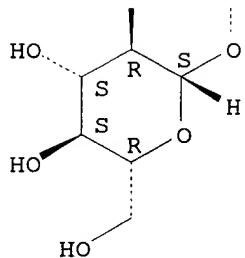
CN 9H-1,7a-(Epoxyethane)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylpropyl)-4-(.alpha.-D-glucopyranosyloxy)-7b-(.beta.-D-glucopyranosyloxy)hexahydro-11-hydroxy-8-methyl-,  
 (1R,3S,3aS,4R,6aR,7aR,8S,10aS,11R,11aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

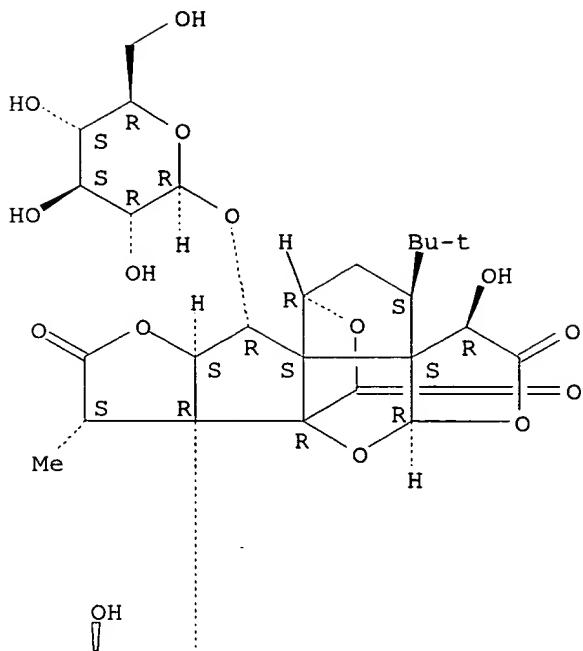


RN 201736-49-4 CAPLUS

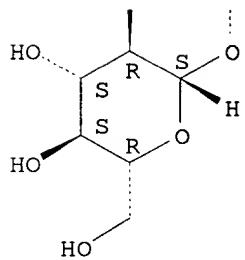
CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)-7b,11-bis(.beta.-D-glucopyranosyloxy)hexahydro-4-hydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

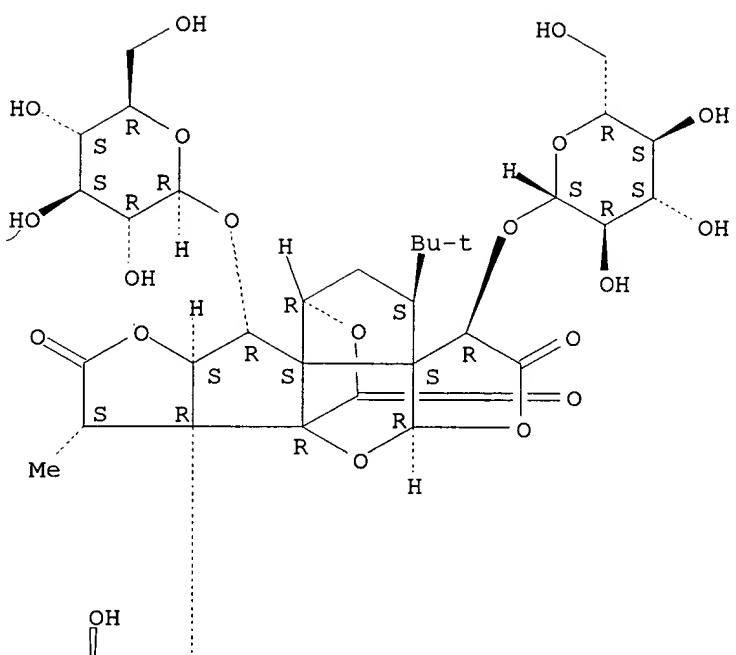


RN 201736-56-3 CAPLUS

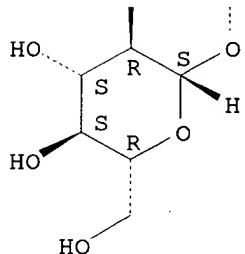
CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5, 9, 12(4H)-trione,  
 3-(1,1-dimethylethyl)-4, 7b, 11-tris(.beta.-D-glucopyranosyloxy)hexahydro-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



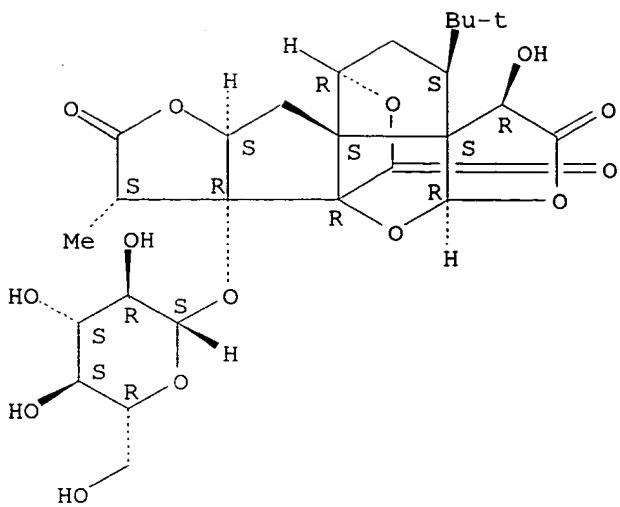
PAGE 2-A



RN 201736-63-2 CAPLUS

CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)-7b-(.beta.-D-glucopyranosyloxy)hexahydro-4-hydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

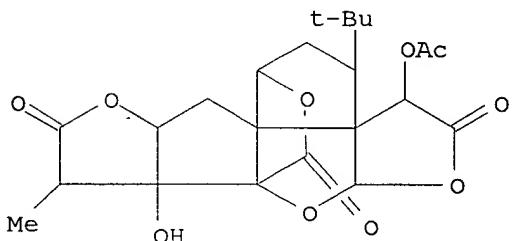


IT 38741-05-8P 201736-27-8P 201736-28-9P  
 201736-29-OP 201736-30-3P 201736-35-8P  
 201736-37-OP 201736-41-6P 201736-43-8P  
 201736-51-8P 201736-52-9P 201736-54-1P  
 201736-59-6P 201736-61-0P 232612-16-7P  
 232612-20-3P 232612-21-4P 232612-22-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (Ginkgo biloba exts. for pharmaceuticals in treatment of drug  
 dependence/**addiction**)

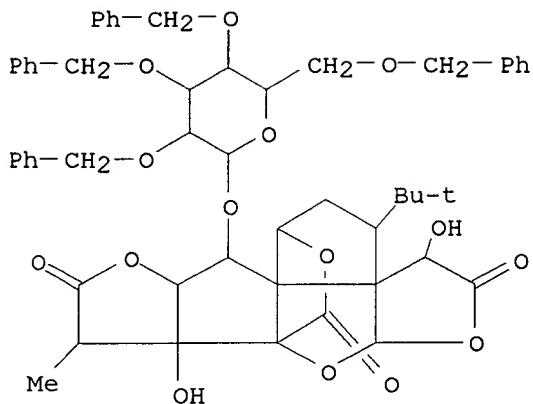
RN 38741-05-8 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-  
 b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
 4-(acetyloxy)-3-(1, 1-dimethylethyl)hexahydro-7b-hydroxy-8-methyl-,  
 (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



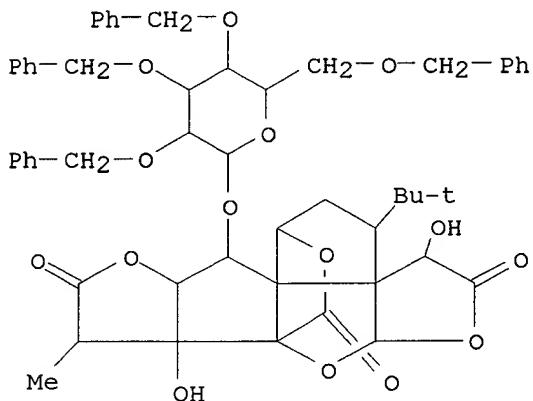
RN 201736-27-8 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-  
 b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione,  
 3-(1, 1-dimethylethyl)hexahydro-4, 7b-dihydroxy-8-methyl-11-[[2, 3, 4, 6-  
 tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-,  
 (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aS)- (9CI) (CA INDEX NAME)



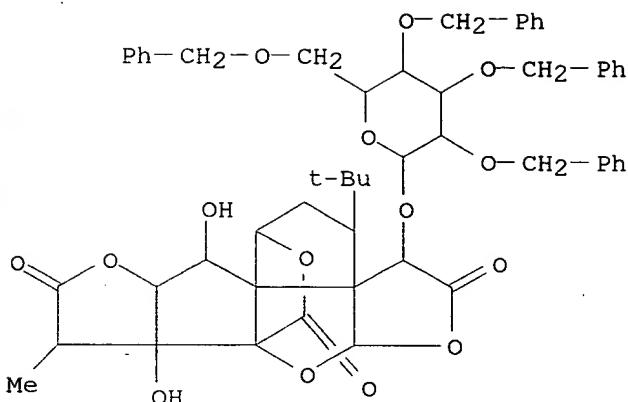
RN 201736-28-9 CAPLUS

9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-11-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-glucopyranosyl]oxy]-,  
 (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aS)- (9CI) (CA INDEX NAME)



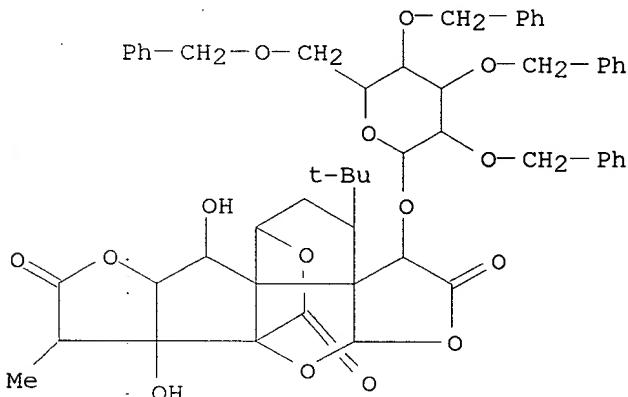
RN 201736-29-0 CAPLUS

CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-7b,11-dihydroxy-8-methyl-4-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-,  
 (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aR)- (9CI) (CA INDEX NAME)



RN 201736-30-3 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethyl-ethyl)hexahydro-7b, 11-dihydroxy-8-methyl-4-[[2, 3, 4, 6-tetrakis-O-(phenylmethyl)-.alpha.-D-glucopyranosyl]oxy]-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aR)- (9CI) (CA INDEX NAME)

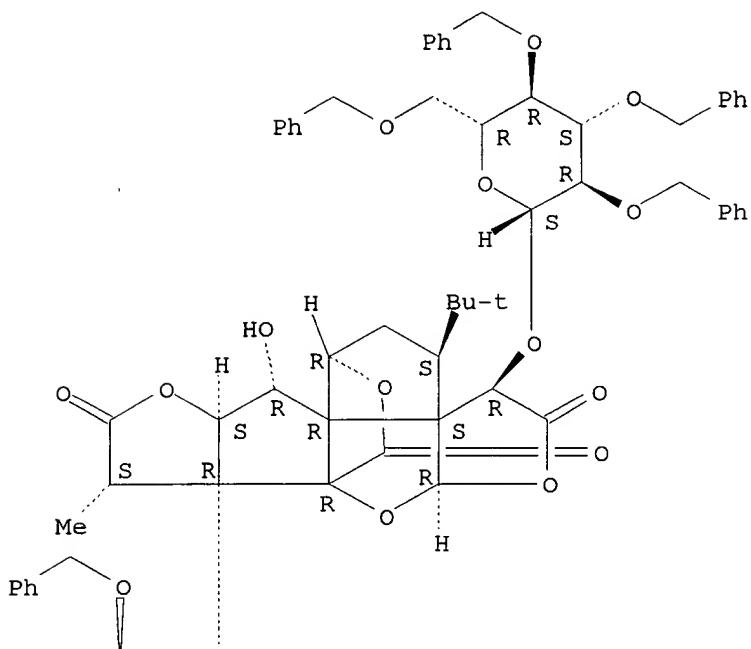


RN 201736-35-8 CAPLUS

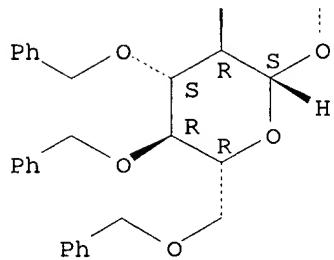
CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethyl-ethyl)hexahydro-11-hydroxy-8-methyl-4, 7b-bis[[2, 3, 4, 6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

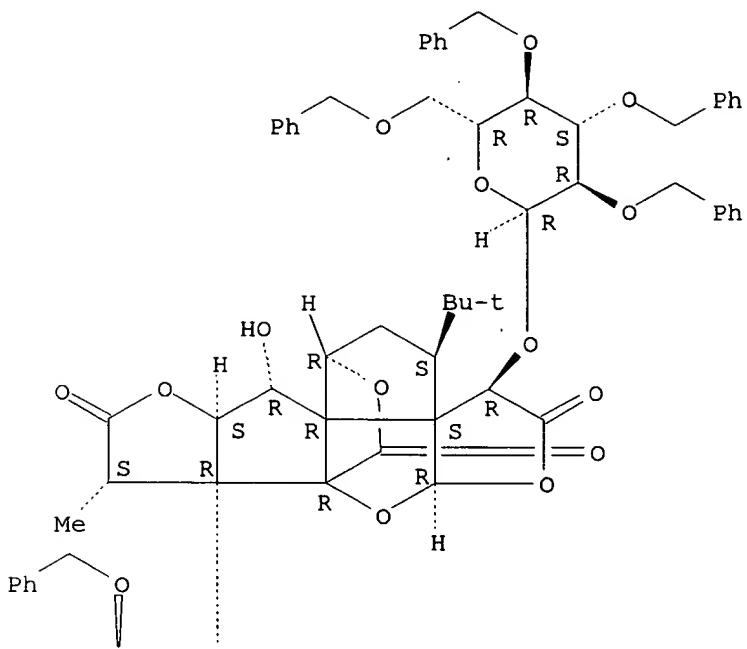


RN 201736-37-0 CAPLUS

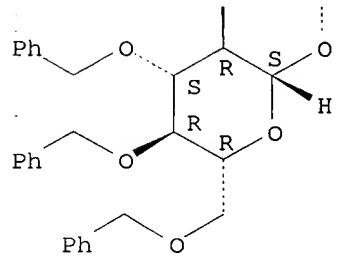
CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-11-hydroxy-8-methyl-4-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-glucopyranosyl]oxy]-7b-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-,  
 (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

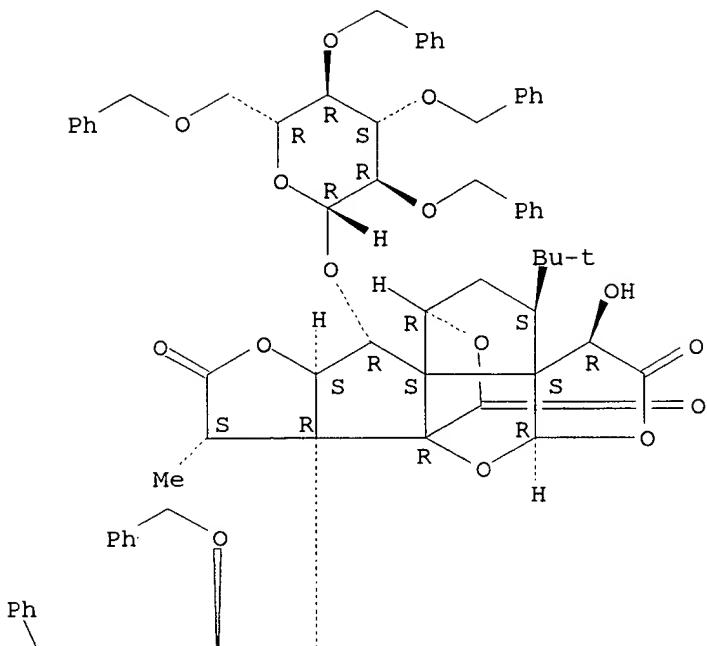


RN 201736-41-6 CAPLUS

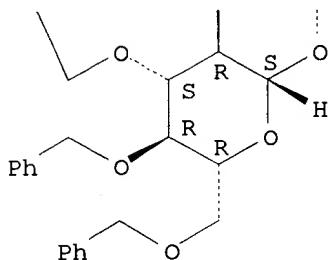
CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-4-hydroxy-8-methyl-7b,11-bis[[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-,  
 (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

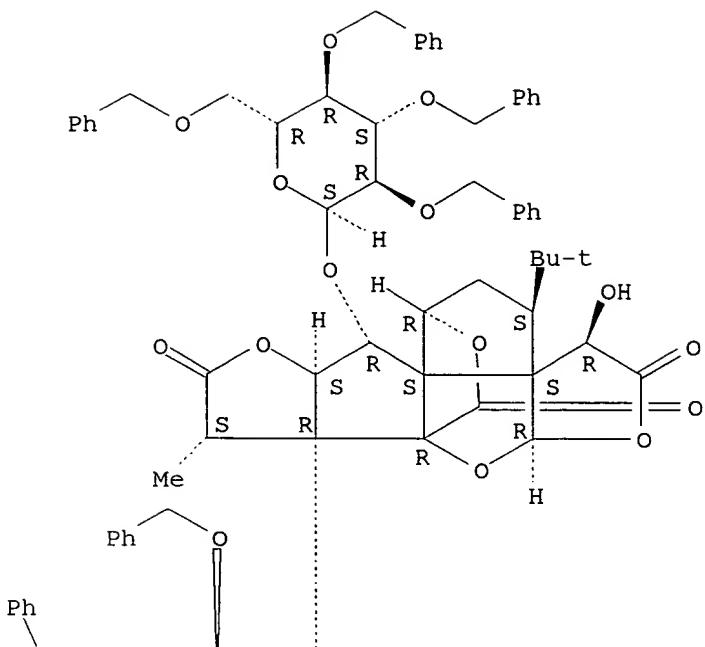


RN 201736-43-8 CAPLUS

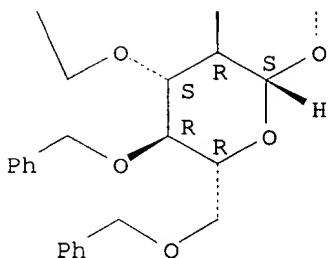
CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-4-hydroxy-8-methyl-11-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-glucopyranosyl]oxy]-7b-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-,  
 (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

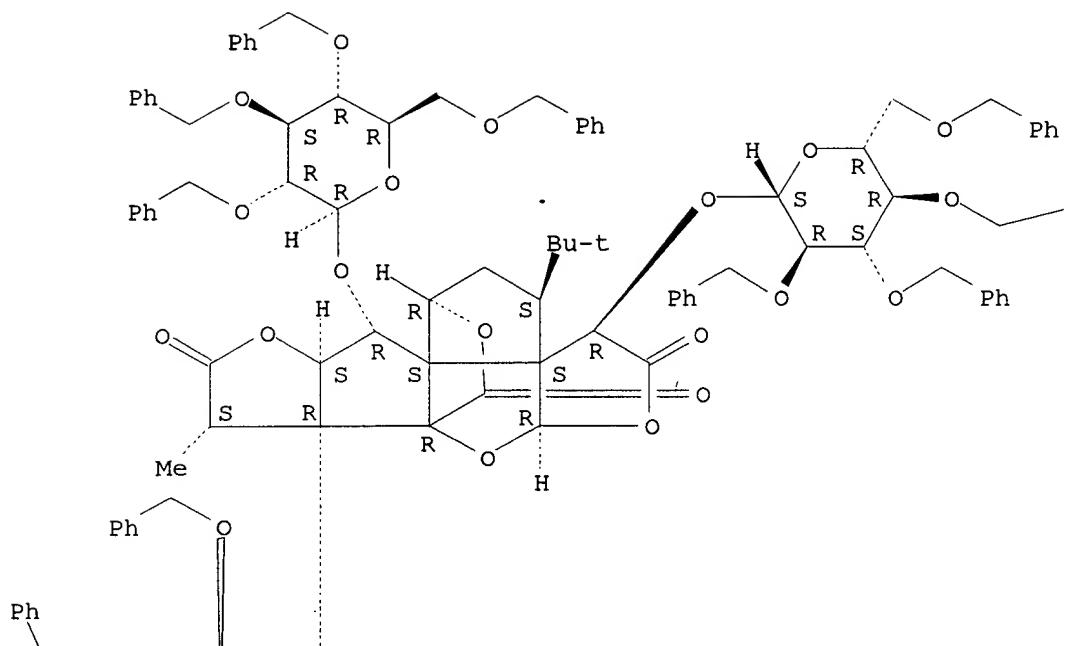


RN 201736-51-8 CAPLUS

CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-8-methyl-4,7b,11-tris[[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-,  
 (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

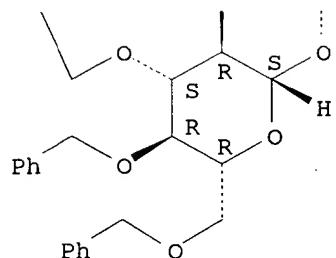
PAGE 1-A



PAGE 1-B

—Ph

PAGE 2-A

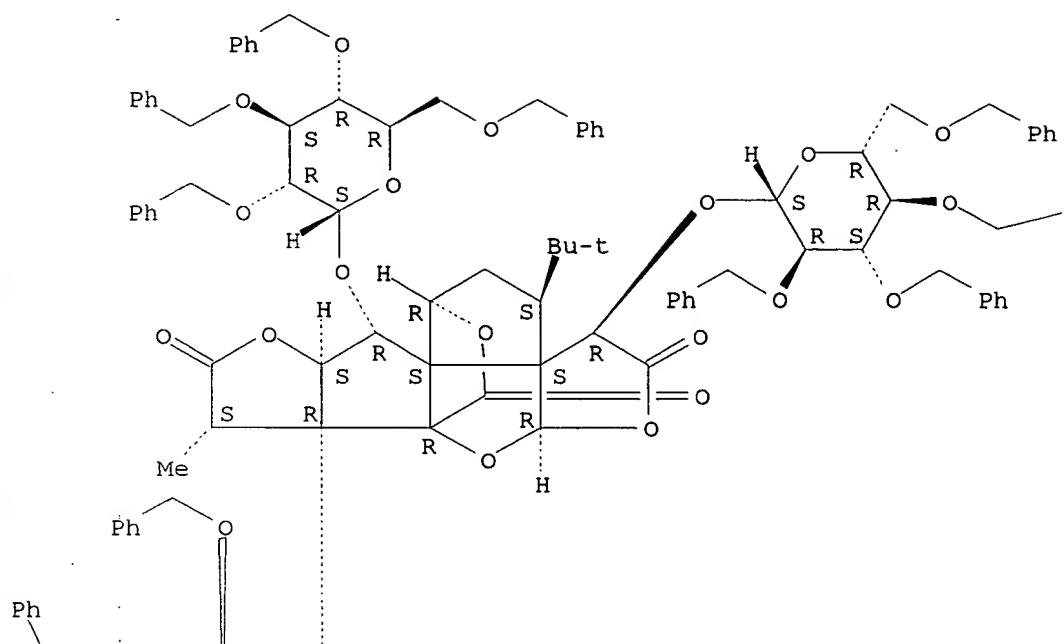


RN 201736-52-9 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5, 9, 12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-8-methyl-11-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-glucopyranosyl]oxy]-4,7b-bis[[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-,  
 (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aS)- (9CI) (CA INDEX NAME)  
 Searched by Barb O'Bryen & Toby Port

Absolute stereochemistry.

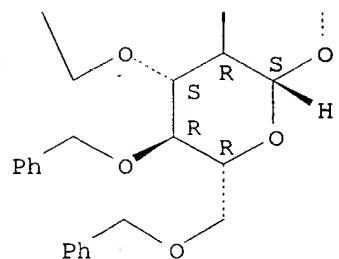
PAGE 1-A



PAGE 1-B

Ph

PAGE 2-A

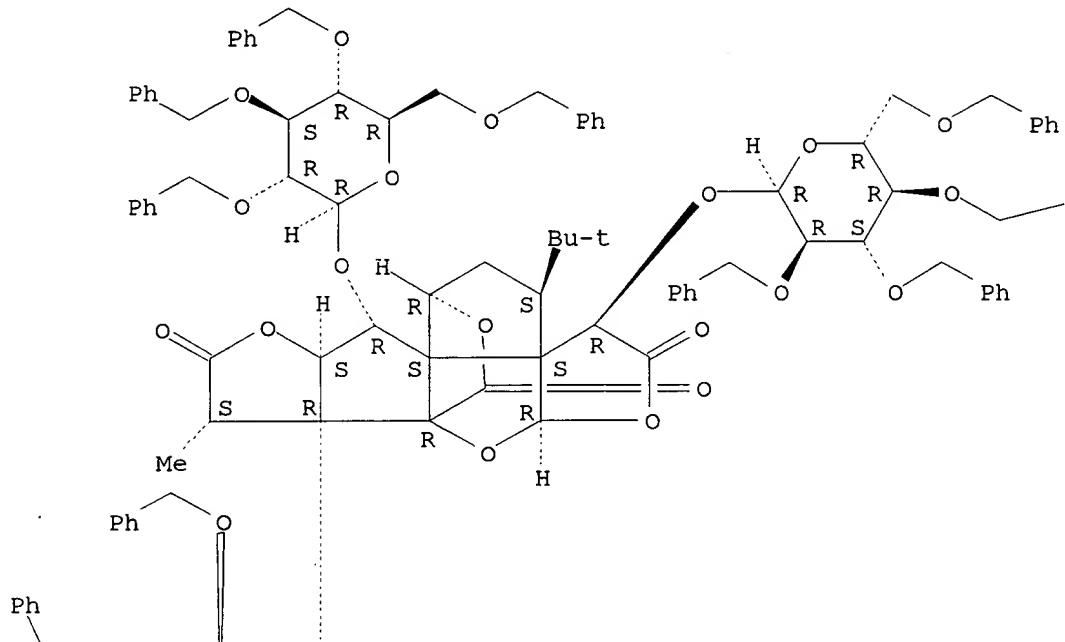


RN 201736-54-1 CAPLUS  
 CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5, 9, 12(4H)-trione,  
 3-(1,1-dimethylethyl)hexahydro-8-methyl-4-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-glucopyranosyl]oxy]-7b, 11-bis[[2,3,4,6-tetrakis-O-  
 Searched by Barb O'Bryen & Toby Port

(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-,  
(1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

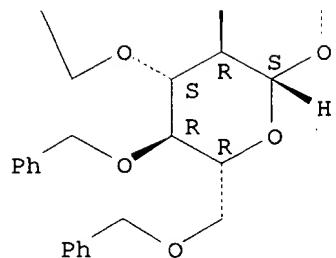
PAGE 1-A



PAGE 1-B

— Ph

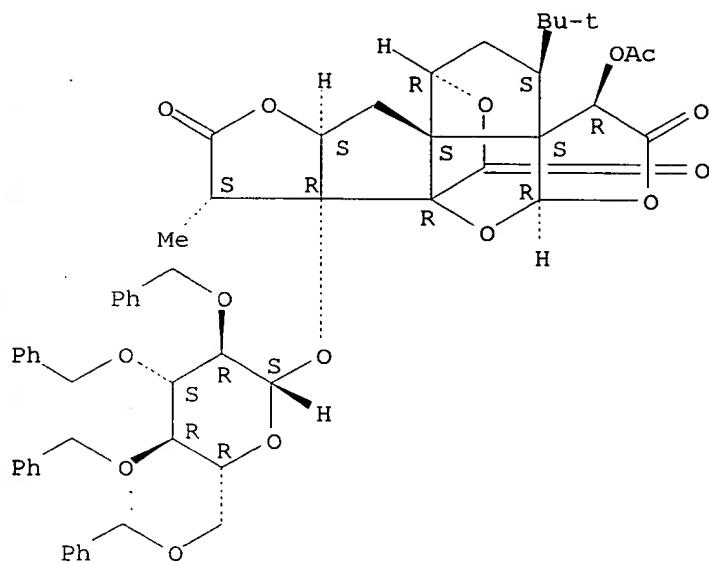
PAGE 2-A



RN 201736-59-6 CAPLUS  
 CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
 Searched by Barb O'Bryen & Toby Port

4-(acetyloxy)-3-(1,1-dimethylethyl)hexahydro-8-methyl-7b-[(2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl)oxy]-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)

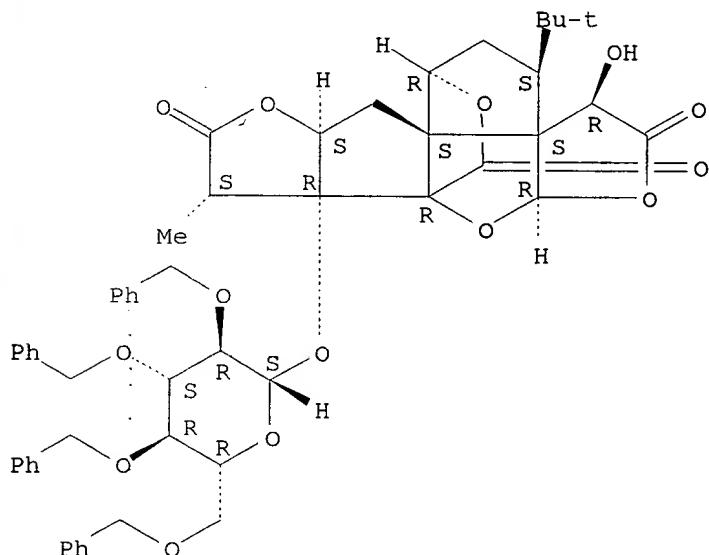
Absolute stereochemistry.



RN 201736-61-0 CAPLUS

CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4-hydroxy-8-methyl-7b-[(2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl)oxy]-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



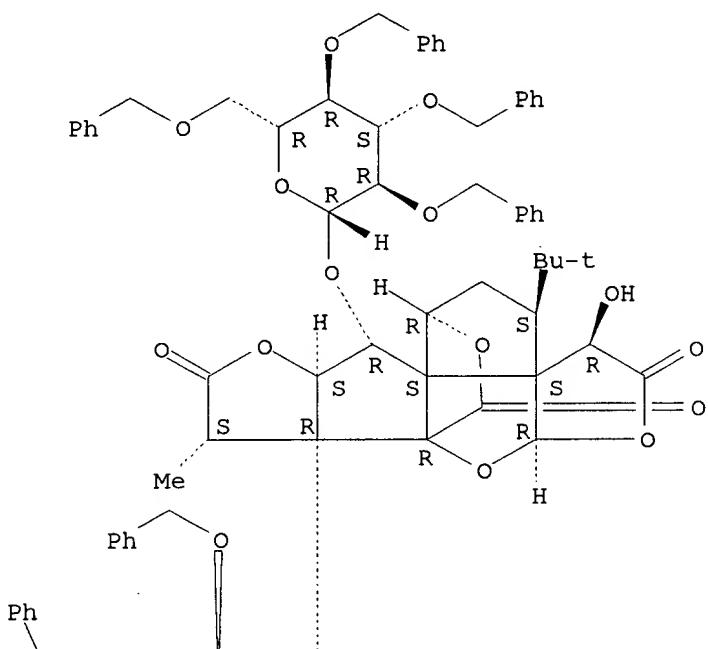
RN 232612-16-7 CAPLUS

CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, Searched by Barb O'Bryen & Toby Port

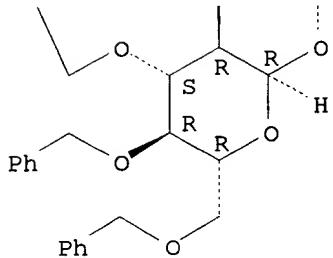
3-(1,1-dimethylethyl)hexahydro-4-hydroxy-8-methyl-7b-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-glucopyranosyl]oxy]-11-[[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]oxy]-,  
(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aS)- (9CI) (CA INDEX NAME)

### Absolute stereochemistry.

PAGE 1-A



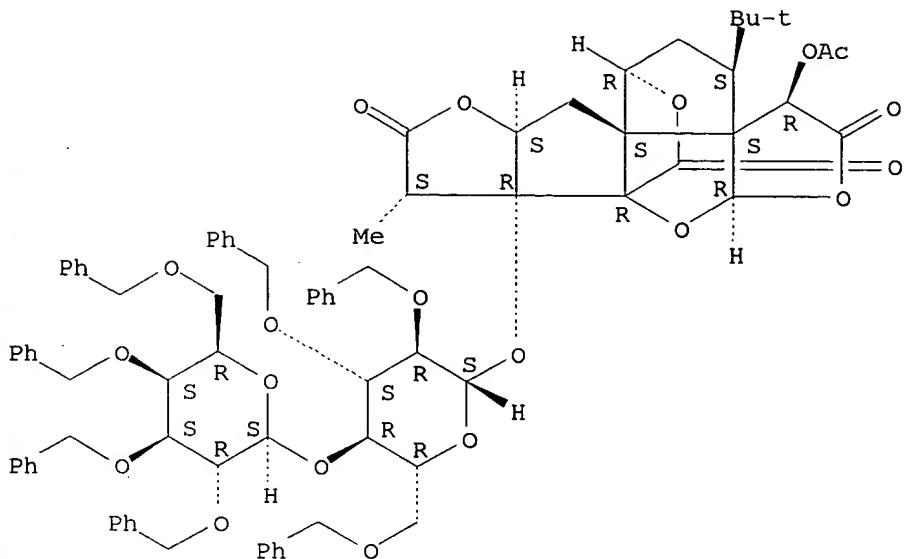
PAGE 2-A



RN 232612-20-3 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 4-(acetyloxy)-3-(1, 1-dimethylethyl)hexahydro-8-methyl-7b-[2, 3, 6-tris-O-(phenylmethyl)-4-O-[2, 3, 4, 6-tetrakis-O-(phenylmethyl)-.beta.-D-galactopyranosyl]-.beta.-D-glucopyranosyl]oxy]-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)

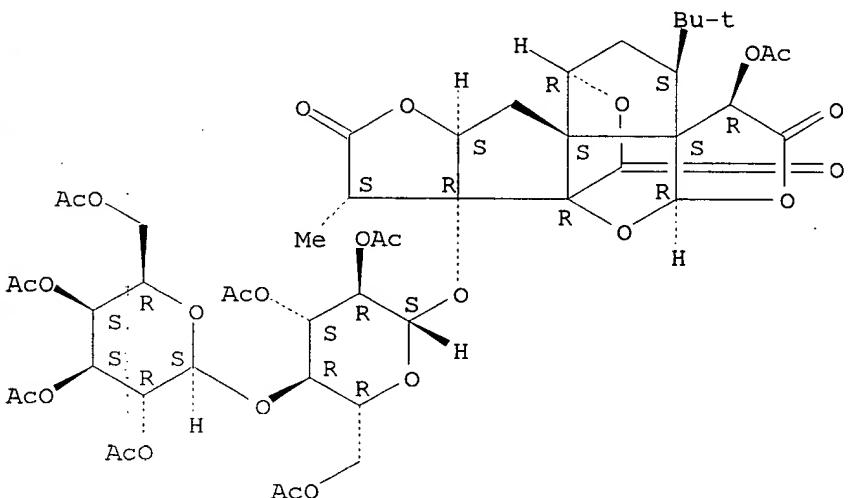
## Absolute stereochemistry.



RN 232612-21-4 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5, 9, 12(4H)-trione, 4-(acetyloxy)-3-(1,1-dimethylethyl)hexahydro-8-methyl-7b-[(2,3,6-tri-O-acetyl-4-O-(2,3,4,6-tetra-O-acetyl-beta-D-galactopyranosyl)-beta-D-glucopyranosyl)oxy]-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)

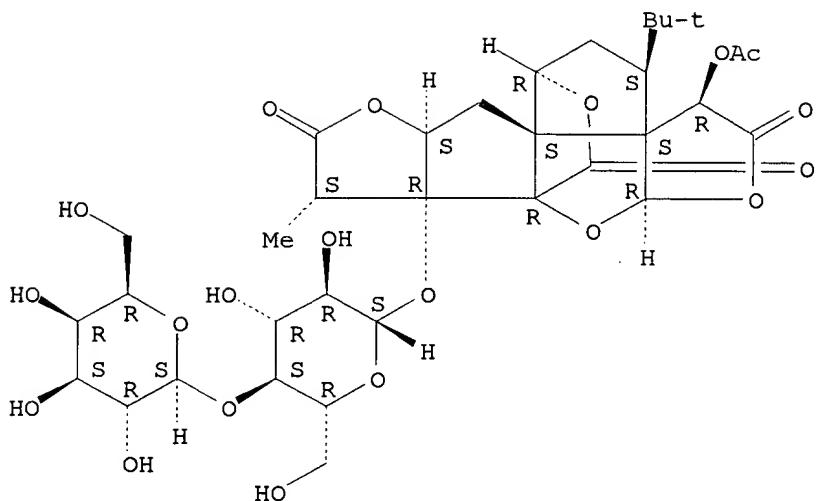
Absolute stereochemistry.



RN 232612-22-5 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5, 9, 12(4H)-trione, 4-(acetyloxy)-3-(1,1-dimethylethyl)-7b-[(4-O-beta-D-galactopyranosyl-beta-D-glucopyranosyl)oxy]hexahydro-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L34 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER:

1996:436102 CAPLUS

DOCUMENT NUMBER:

125:95719

TITLE:

Sample preparation of standardized extracts of Ginkgo biloba by supercritical fluid extraction

AUTHOR(S):

van Beek, Teris A.; Taylor, Larry T.

CORPORATE SOURCE:

Dep. Org. Chem., Agric. Univ., Wageningen, 6703 HB, Neth.

SOURCE:

Phytochem. Anal. (1996), 7(4), 185-191

CODEN: PHANEL; ISSN: 0958-0344

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB A method of sample prepn. of standardized exts. of Ginkgo biloba using supercrit. fluid extn. (SFE) is described. Ginkgolides and bilobalide could selectively extd. with carbon dioxide contg. 10% methanol at 335 atm and 45.degree.C from a methanolic soln. of the ext. An in-line filter of silica gel was found to be essential for obtaining clean samples.

Trapping was carried out with a solid silica gel trap at 80.degree.C.

After eluting the trap with Me acetate, the sample could be analyzed by gas liq. chromatog. or high performance liq. chromatog. Recoveries of the five terpenes relative to a std. solid phase extn. (SPE) procedure varied for two different exts. from 98.6 to 102.3%. Relative std. deviations were better for SFE than for SPE. A further advantage for the SFE over the SPE method is that it is much less laborious. A disadvantage is that it requires an automated supercrit. extractor. With a small adaptation, the SFE method could also be used for finished ginkgo drugs in an aq. alc. soln.

IT 15291-75-5, Ginkgolide a 15291-76-6, Ginkgolide C

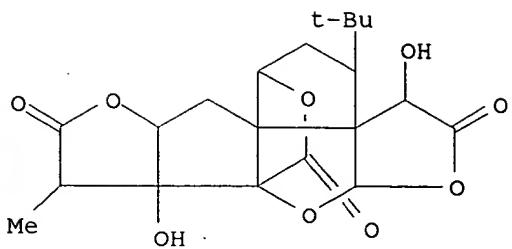
15291-77-7, Ginkgolide b 107438-79-9, Ginkgolide J

RL: ANT (Analyte); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process)

(use of supercrit. fluid extn. for the simultaneous extn. and purifn. of standardized ginkgo exts.)

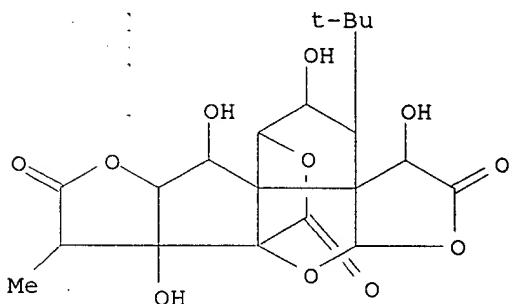
RN 15291-75-5 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5, 9, 12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4, 7b-dihydroxy-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



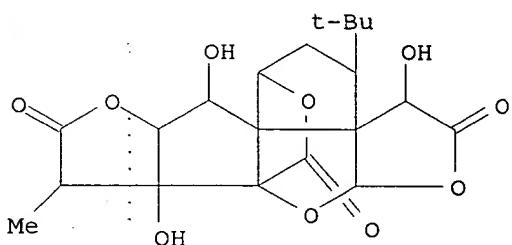
RN 15291-76-6 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethyl-ethyl)hexahydro-2, 4, 7b, 11-tetrahydroxy-8-methyl-, (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11S, 11aR)- (9CI) (CA INDEX NAME)



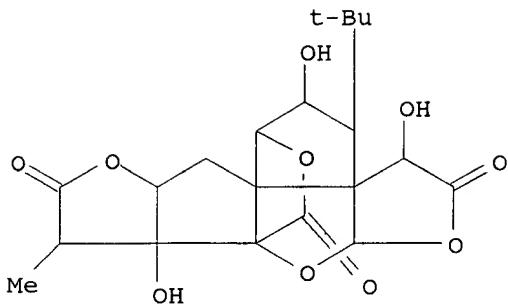
RN 15291-77-7 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethyl-ethyl)hexahydro-4, 7b, 11-trihydroxy-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11S, 11aR)- (9CI) (CA INDEX NAME)



RN 107438-79-9 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethyl-ethyl)hexahydro-2, 4, 7b-trihydroxy-8-methyl-, (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



L34 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1994:45965 CAPLUS  
 DOCUMENT NUMBER: 120:45965  
 TITLE: Methods of treating aphthous ulcers and other mucocutaneous disorders  
 INVENTOR(S): Vora, Kakubhai R.; Khandwala, Atul; Smith, Charles G.  
 PATENT ASSIGNEE(S): Chemex/Block Drug, JV, USA  
 SOURCE: Can. Pat. Appl., 26 pp.  
 CODEN: CPXXEB  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2065496	AA	19921010	CA 1992-2065496	19920409
JP 05097706	A2	19930420	JP 1992-87185	19920408
EP 518798	A2	19921216	EP 1992-470014	19920409
EP 518798	A3	19941207		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE EP 836852	A1	19980422	EP 1997-202524	19920409
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT				
PRIORITY APPLN. INFO.:			US 1991-682347	19910409
			EP 1992-470014	19920409

OTHER SOURCE(S): MARPAT 120:45965

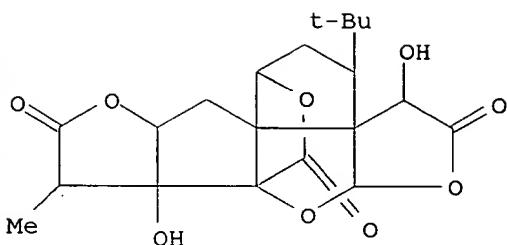
AB For treatment of aphthous ulcers and mucocutaneous disorders, a compn. contg. .gtoreq.1 drug selected from mediator release inhibitors; 5-lipoxygenase inhibitors; leukotriene antagonists; and platelet-activating factor antagonists is claimed. Patients with aphthous ulcers treated twice a day for three days with 5% treating agent showed clin. significant improvement in all parameters (e.g. ulcer size and redn. in erythema) measured over the vehicle paste.

IT 15291-75-5, Ginkgolide A 15291-77-7

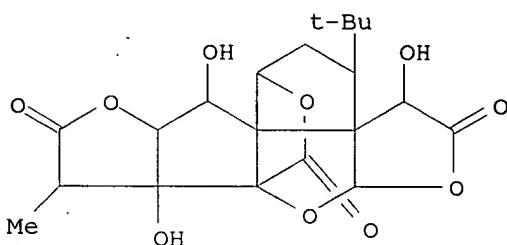
RL: BIOL (Biological study)  
 (compn. contg., for treating aphthous ulcers and mucocutaneous disorders)

RN 15291-75-5 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione, 3-(1,1-dimethylethyl)hexahydro-4,7b-dihydroxy-8-methyl-, (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11aS)- (9CI) (CA INDEX NAME)



RN 15291-77-7 CAPLUS

CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,  
3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-,  
(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)- (9CI) (CA INDEX NAME)

L34 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1991:415699 CAPLUS

DOCUMENT NUMBER: 115:15699

TITLE: Determination of ginkgolides and bilobalide in Ginkgo biloba leaves and phytopharmaceuticals

AUTHOR(S): Van Beek, T. A.; Scheeren, H. A.; Rantio, T.; Melger, W. C.; Lelyveld, G. P.

CORPORATE SOURCE: Lab. Org., Agric. Univ., Wageningen, 6703 HB, Neth.

SOURCE: J. Chromatogr. (1991), 543(2), 375-87

CODEN: JOCRAM; ISSN: 0021-9673

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A method was developed for the detn. of the pharmacol. active terpenoids ginkgolide A, B and C and bilobalide in *G. biloba* leaves and phytopharmaceutical preps. contg. ginkgo exts. The leaves (400-800 mg) are selectively extd. with MeOH-H<sub>2</sub>O (10:90) and the resulting ext. is purified by a polyamide and a C18 solid-phase extn. column. After concn., the terpenoids are detd. by HPLC on a C18 column with MeOH-H<sub>2</sub>O (33:67) as eluent and refractive index detection. Benzyl alc. is used as an internal std. The recovery of the method is 95%. The reproducibility is dependent on the concn. and varies from 2 to 15%. The min. concn. that can be detd. in leaves is 10 .mu.g of terpenoid/g of dry leaves. With a small modification the method can be used equally well for phytopharmaceuticals. Several ginkgo medicines were investigated and the total concn. of terpenoids was found to vary by a factor 18. The concn. in leaves varied by a factor 40.

IT 15291-75-5, Ginkgolide A 15291-76-6, Ginkgolide C

15291-77-7, Ginkgolide B 107438-79-9, Ginkgolide J

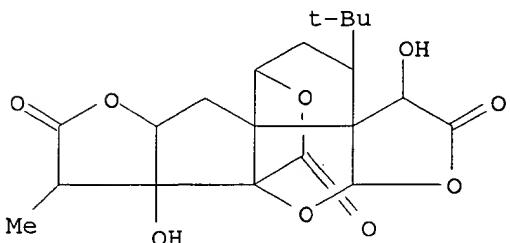
RL: ANT (Analyte); ANST (Analytical study)

(detn. of, in *Ginkgo biloba* leaves, by HPLC)

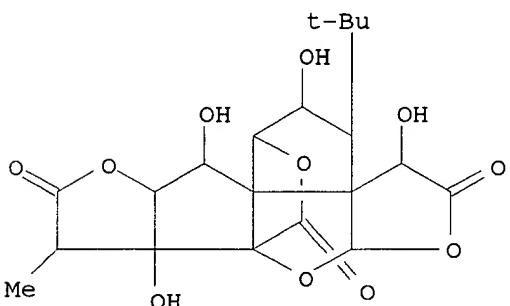
RN 15291-75-5 CAPLUS

Searched by Barb O'Bryen &amp; Toby Port

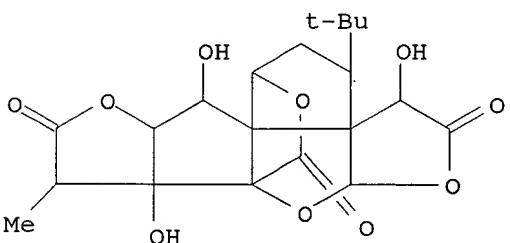
CN 9H-1, 7a-(Epoxyethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-4, 7b-dihydroxy-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



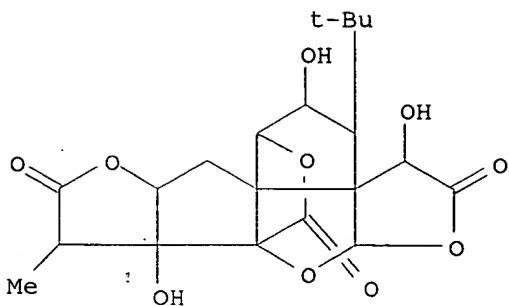
RN 15291-76-6 CAPLUS  
 CN 9H-1, 7a-(Epoxyethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-2, 4, 7b, 11-tetrahydroxy-8-methyl-, (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11S, 11aR)- (9CI) (CA INDEX NAME)



RN 15291-77-7 CAPLUS  
 CN 9H-1, 7a-(Epoxyethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-4, 7b, 11-trihydroxy-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11S, 11aR)- (9CI) (CA INDEX NAME)



RN 107438-79-9 CAPLUS  
 CN 9H-1, 7a-(Epoxyethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2':3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-2, 4, 7b-trihydroxy-8-methyl-, (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



L34 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1989:134945 CAPLUS

DOCUMENT NUMBER: 110:134945

TITLE: Enantioselective route to a key intermediate in the total synthesis of ginkgolide B

AUTHOR(S): Corey, E. J.; Gavai, Ashvinikumar V.

CORPORATE SOURCE: Dep. Chem., Harvard Univ., Cambridge, MA, 02138, USA

SOURCE: Tetrahedron Lett. (1988), 29(26), 3201-4

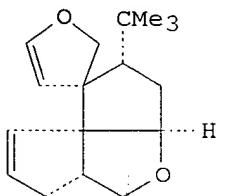
CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

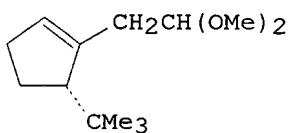
LANGUAGE: English

OTHER SOURCE(S): CASREACT 110:134945

GI



I



II

AB An enantioselective route to the ginkgolide B, intermediate I has been developed which is based on enantioselective redn. of 2-(2,2-dimethoxyethyl)-2-cyclopenten-1-one to the (R)-alc. and subsequent distereoselective anti-SN2' displacement to form intermediate II which was converted in several steps to I.

IT 112652-59-2, (.-+.)-Ginkgolide B

RL: RCT (Reactant)

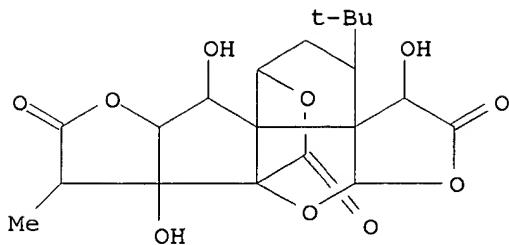
(intermediate for, enantioselective prep. of)

RN 112652-59-2 CAPLUS

CN 9H-1,7a-(Epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione,

3-(1,1-dimethylethyl)hexahydro-4,7b,11-trihydroxy-8-methyl-,

(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11S,11aR)-rel- (CA INDEX NAME)



L34 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1967:421756 CAPLUS

DOCUMENT NUMBER: 67:21756

TITLE: Ginkgolides. I. Isolation and characterization of the various groups

AUTHOR(S): Maruyama, Masao; Terahara, Akira; Itagaki, Yasuhiro; Nakanishi, Koji

CORPORATE SOURCE: Tohoku Univ., Sendai, Japan

SOURCE: Tetrahedron Lett. (1967), (4), 299-302

CODEN: TELEAY

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An extended series of investigations showed that the 4 ginkgolides isolated from Ginkgo biloba are unique cage mols. which are C<sub>20</sub> compds. incorporating a tert-Bu group and 6 5-membered rings in a spiro[4.4]nonane system. A MeOH ext. of 100 kg. undried chopped root bark concd., the sirup washed with C<sub>6</sub>H<sub>6</sub>, the aq. layer sepd., and the solid content crystd. from EtOH gave 50 g. ginkgolides. The crystals taken up in Me<sub>2</sub>CO and adsorbed on Celite and the Celite layered on silica gel and eluted with CHCl<sub>3</sub> contg. a trace of alc. gave a mixt. of ginkgolide A (I), ginkgolide B (II), a small amt. of ginkgolide M (III), and finally ginkgolide C (IV). The sepn. of I and II was extremely tedious and complicated by the polymorphic tendency of I. After 10-15 step fractional recrystn. 10, 10, 20, and 0.2 g. I, II, III, and IV were obtained. All are bitter compds. decompg. above 280.degree., and extremely stable to mineral acids. The relatively volatile I dimethyl ether, C<sub>22</sub>H<sub>28</sub>O<sub>9</sub>, showed m/e 436, 168 and detns. by high resolution mass spectrometry showed I, II, III, IV to be C<sub>20</sub>H<sub>24</sub> compds., C<sub>20</sub>H<sub>24</sub>O<sub>9</sub>, [α]<sub>D</sub> -39.degree. (c 1.0, dioxane); C<sub>20</sub>H<sub>24</sub>O<sub>10</sub>, [α]<sub>D</sub> -63.degree.; C<sub>20</sub>H<sub>24</sub>O<sub>11</sub>, [α]<sub>D</sub> -19.degree.; and C<sub>20</sub>H<sub>24</sub>O<sub>10</sub>, [α]<sub>D</sub> -39.degree., resp. The presence of a 9-proton singlet at 1.2-1.3 ppm. in the N.M.R. spectra of all derivs., and of a strong mass spectral peak at 57.074 suggest the presence of a tert-Bu group established by Kuhn-Roth oxidn. of IV and isolation of tert-BuCO<sub>2</sub>H. Conventional N.M.R. techniques showed the presence of 1,2,3, and 3-secondary and 1,1,1, and 0-tertiary OH groups in I, II, III, and IV, resp. The ginkgolides showed strong but ill-defined ir absorption around 1780 cm.<sup>-1</sup> due only to lactone CO groups. The presence of 3 lactone groupings was suggested by lactone titrns. Absence of a ketone grouping was suggested also by plain neg. rotary dispersion curves exhibiting no Cotton effect in the 250-700 m.mu. range. The remaining O function in "I triether" was assigned to an ether linkage. Lack of olefinic peaks in N.M.R. spectra, absence of ir absorption near 1650 cm.<sup>-1</sup>, and low end-absorption in the uv spectra showed lack of C:C double bonds and showed that the ginkgolides are hexacyclic compds.

IT 15291-75-5P 15291-76-6P 15291-77-7P

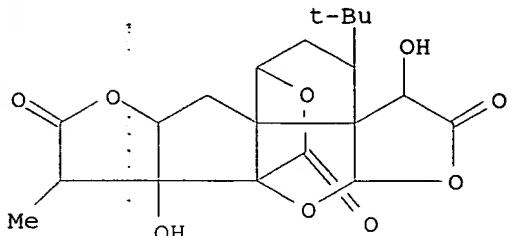
15291-78-8P

RL: PREP (Preparation)  
(from Ginkgo biloba)

RN 15291-75-5 CAPLUS

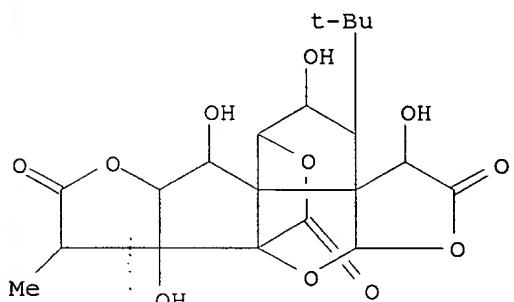
Searched by Barb O'Bryen & Toby Port

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-4, 7b-dihydroxy-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11aS)- (9CI) (CA INDEX NAME)



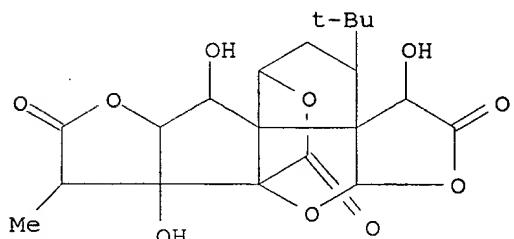
RN 15291-76-6 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-2, 4, 7b, 11-tetrahydroxy-8-methyl-, (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11S, 11aR)- (9CI) (CA INDEX NAME)



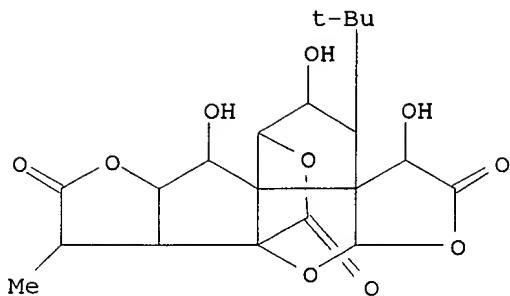
RN 15291-77-7 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-4, 7b, 11-trihydroxy-8-methyl-, (1R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11S, 11aR)- (9CI) (CA INDEX NAME)



RN 15291-78-8 CAPLUS

CN 9H-1, 7a-(Epoxymethano)-1H, 6aH-cyclopenta[c]furo[2, 3-b]furo[3', 2': 3, 4]cyclopenta[1, 2-d]furan-5, 9, 12(4H)-trione, 3-(1, 1-dimethylethyl)hexahydro-2, 4, 11-trihydroxy-8-methyl-, (1S, 2R, 3S, 3aS, 4R, 6aR, 7aR, 7bR, 8S, 10aS, 11R, 11aS)- (9CI) (CA INDEX NAME)



FILE 'CAOLD' ENTERED AT 11:19:20 ON 19 OCT 2000  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2000 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966  
 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

L17 348 SEA FILE=REGISTRY ABB=ON PLU=ON 5526.1.1/RID  
 L37 0 SEA FILE=CAOLD ABB=ON PLU=ON L17

=> file napra; d que 145

FILE 'NAPRALERT' ENTERED AT 11:19:57 ON 19 OCT 2000  
 COPYRIGHT (C) 2000 Board of Trustees of the University of Illinois,  
 University of Illinois at Chicago.

.....  
 Some records in this file are extremely long when displayed in the ALL format. The CHC (Character Count) field can be used to estimate record length. Type HELP CONTENT at the next arrow prompt (>) for data content and search strategy information.

FILE COVERS 1650 TO 16 OCT 2000 (20001016/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

L17 348 SEA FILE=REGISTRY ABB=ON PLU=ON 5526.1.1/RID  
 Searched by Barb O'Bryen & Toby Port

L38 91 SEA FILE=NAPRALERT ABB=ON PLU=ON L17  
 L39 2185 SEA FILE=NAPRALERT ABB=ON PLU=ON ?ALCOHOL?  
 L40 1200 SEA FILE=NAPRALERT ABB=ON PLU=ON ?TOBACCO? OR ?CIGAR? OR  
     ?NICOTIN?  
 L41 55 SEA FILE=NAPRALERT ABB=ON PLU=ON ?ADDICT?  
 L42 14 SEA FILE=NAPRALERT ABB=ON PLU=ON DRUG (3A) DEPEND?  
 L43 229 SEA FILE=NAPRALERT ABB=ON PLU=ON ?HEROIN? OR ?COCAINE?  
 L44 607 SEA FILE=NAPRALERT ABB=ON PLU=ON ?AMPHETAMIN? OR ?BARBITURAT?  
     OR ?METHEDRIN? OR ?BENZEDRIN? OR ?DEXEDRIN?  
 L45 1/SEA FILE=NAPRALERT ABB=ON PLU=ON L38 AND ((L39 OR L40 OR L41  
     OR L42 OR L43 OR L44))

=> d kwic  
*answer below is a false hit*

L45 ANSWER 1 OF 1 NAPRALERT COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.  
 ORGN

ACTIVE

Comment(s): DATA INCOMPLETE - DERIVED FROM AN ABSTRACT.

COMPOUND. Chemical name (CN): GINKGOLIDE B

CAS Registry Number (RN): 15291-77-7

Class identifier (CI): DITERPENE

ORGN Class: GYMNOSPERM Family: GINKGOACEAE Genus: GINKGO Species: BILOBA  
 Organism part: DRIED LEAF

TYPE OF STUDY (STY): IN VITRO Classification (CC): APOPTOSIS INHIBITION

Extract type: HYDRO-**ALCOHOLIC** EXT

Dosage Information: CELL CULTURE; CONC USED: 100.0 MG per LITER

Pathological system: NEURON

Qualitative results: ACTIVE

Comment(s): DATA INCOMPLETE. . .

=> file.home

FILE 'HOME' ENTERED AT 11:20:10 ON 19 OCT 2000